



## CITY OF PALMER

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### 2007 ANNUAL DRINKING WATER QUALITY REPORT

We are pleased to present the 2007 Drinking Water Quality Report for the City of Palmer. This report is designed to keep you informed about the excellent water quality we have provided to you over the past year.

#### *Capitol Projects*

The City of Palmer will have three major capitol projects going throughout this summer and a couple will continue into next year as well. On the south side of Palmer we have the Lucas project which will include replacing approximately 4,000 feet of antiquated steel waterline, old valves and hydrants. We are replacing 1,600 feet of old waterline starting at the reservoir on Scott Road and working our way to the area of Oscar Street. The third project is the beginning phases of site selection and design work for a 1 million gallon water storage tank to be located near the Mat-Su Regional Medical Center.

Regular construction updates will be available at the cities website at [www.cityofpalmer.org](http://www.cityofpalmer.org)

#### *Water Sources*

The State of Alaska Department of Environmental Conservation (ADEC) has provided us with source water assessments for wells 1, 3, and 4 and these are available upon request for viewing. The public water system for City of Palmer is a Class A, Community water system. The water system is located in Palmer and the sources are groundwater wells. The wellheads received a susceptibility of low and the aquifer received susceptibility ratings ranging from low to very high dependant on the well. Combining these scores produces a natural susceptibility of low to medium for the sources. In addition, this water system has received a vulnerability rating of medium for bacteria/viruses, medium to high for nitrates/nitrites, low to high for volatile organic chemicals, low to high for heavy metals, other organic chemicals, and for synthetic organic chemicals.

Your water is supplied by four wells located in and just outside the city of Palmer. The production of water is primarily through alternating operation of wells 4 and 5; though they are capable of simultaneous operation if required. These two wells will normally supply 90% of your water. Well #1 runs as needed and supplies 10% of your water. Well #3 is exercised periodically, but is maintained as a backup water source.

#### *Water Treatment*

We are fortunate to have a good clean water source at the City of Palmer. Water is disinfected with a chlorine solution and fluoride is added to assist in preventing dental diseases. After treatment the water is either directly discharged into our distribution system or pumped to one of our four storage tanks.

#### *Water Quality Data Table*

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate the water poses a health risk.

Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

<u>Contaminants</u>	<u>MCLG or MRDLG</u>	<u>MCL, TT, or MRDL</u>	<u>Your Water</u>	<u>Range Low High</u>	<u>Sample Date</u>	<u>Violation</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Barium ( <u>ppm</u> )	2	2	0.0466	0.0175 0.0466	2002	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
<b>Radioactive Contaminants</b>							
Alpha emitters ( <u>pCi/L</u> )	0	15	0	NA	2005	No	Erosion of natural deposits
Radium (combined 226/228) ( <u>pCi/L</u> )	0	5	0.54	NA	2005	No	Erosion of natural deposits
Uranium ( <u>ug/L</u> )	0	30	0.3	NA	2005	No	Erosion of natural deposits
<u>Contaminants</u>	<u>MCLG</u>	<u>AL</u>	<u>Your Water</u>	<u>Sample Date</u>	<u># Samples Exceeding AL</u>	<u>Exceeds AL</u>	<u>Typical Source</u>
<b>Inorganic Contaminants</b>							
Copper - action level at consumer taps ( <u>ppm</u> )	1.3	1.3	0.209	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead - action level at consumer taps ( <u>ppb</u> )	0	15	4.6	2007	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Arsenic ( <u>ppb</u> )	0	10	Low 0.357 High 2.86	2007	0	No	Erosion of natural deposits
Nitrate ( <u>ppm</u> )	10	10	Low 0.849 High 0.953	2007	0	No	Erosion of natural deposits
(Measured as Nitrogen)							

In 2007 we tested 20 homes for lead and copper. The test result table reflects the highest level detected from all 20 homes. None of the samples exceeded the action level (AL) listed in the table. The next lead and copper testing will be done before the end of 2010; we will be required to test at least 20 homes depending on the population at the time of sampling.

#### **Disinfectants & Disinfection By-Products**

(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.)

Haloacetic Acids (HAA5) (ppb)	NA	60	7.6	NA	2006	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	6.54	NA	2006	No	By-product of drinking water disinfection

<b>Unit Descriptions</b>	
<b>Term</b>	<b>Definition</b>
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (µg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.

<b>Important Drinking Water Definitions</b>	
<b>Term</b>	<b>Definition</b>
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level

### **Why are there contaminants in my drinking water?**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

### **Sampling Violations for 2007**

We are required by ADEC to sample for bacteria in 8 various locations throughout our water system each month. The City missed 1 of the 8 samples in June of 2007. As soon as this became evident the sample was taken immediately and was negative. Additional precautions have been put into place to prevent any future violations.

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City of Palmer  
231 W. Evergreen Ave.  
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### **Monitoring Results**

To understand the possible health effects described for many regulated constituents, a person would have to drink two liters of water every day at the MCL (maximum contaminant level) for a lifetime to have a one-in-a-million chance of having the described health effect. The City of Palmer monitors the distribution system by doing bacterial samples eight times a month according to DEC regulations.

### **Questions ?**

If you have any questions about this report or concerning your water utility, please contact Greg Wickham, Public Works Acting Director at 745-3925 or John Berberich, Utilities Foreman at 863-0746. All test results are available to the public either through the City of Palmer Public Works Department at 745-3925, or through the Alaska Department of Environmental Conservation, 1700 E. Bogard Road, Building B, Suite 103, Wasilla AK 99654 or 376-5038.

### **Public Information Notice**

#### **To all residents of the City of Palmer:**

The city is required under their National Pollutant Discharge Elimination System (NPDES) to develop a public information and education program to control the introduction of household hazardous material to the sewer system.

For example, some of the hazardous wastes found in homes are: acids, antifreeze, caustics, cleaners, disinfectants, floor wax, furniture stripper, herbicides, old medication, paint products, paint thinner, pcb's, pesticides, poisons, printing and photographic chemicals, solvents, transmission fluids, wood preservatives and many more.

To assist the city in keeping these items out of the sewer system it is requested that you contact the Central Landfill at 745-9838 for dates and times when you may bring hazardous wastes in for disposal.

Your cooperation in this matter will allow the city to operate its wastewater treatment facility in accordance with EPA requirements and the design of the facility.